



MTRC XRL Contract 822 Guangzhou-Shenzhen-Hong Kong Railway Line

Hong Kong S.A.R. - People's Republic of China

This high-speed railway line, designed to link the cities of Guangzhou, Shenzhen and Hong Kong from 2015, will allow Hong Kong Special Administrative Region (S.A.R.) to be connected to the rest of the national high-speed railway network in the People's Republic of China, and to reach the cities of Shanghai and Beijing in just 6 and 8 hours respectively. The line is just a small part of an ambitious national plan to expand the Chinese railway transport system, which will be completed in 2020. The Express Rail Link (XRL) is a 26 km long stretch of the Guangzhou-Shenzhen-Hong Kong line in the area around Hong Kong. The Mass Transit Railway Corporation (MTRC) is responsible for the construction of the tunnels along this line, using construction techniques that have a low impact on the environment and guaranteeing the structural integrity of the area around the construction area and a limited impact on the surrounding neighbourhoods. The "mechanized tunnelling" and "drill and blast" methods in particular have been used. Contract 822 is the longest tunnel (7.7 km) of the XRL Hong Kong section. This is a twin-track single-bore tunnel from 16 to 22 m wide going down to a depth of around 960 m. To waterproof the tunnel's surfaces, Mapei has supplied a complete system of products such as MAPEPLAN TU S, MAPEPLAN GEO 500 (distributed in Hong Kong by Mapei China Ltd), MAPEPLAN DISK and MAPEPLAN COLLAR.

MAPEPLAN TU S is a synthetic, single-layer PVC-P membrane with an orange signal layer. It has high mechanical properties, excellent workability and high welding characteristics. The MAPEPLAN TU S system has also been supplied to waterproof other tunnels along the XRL, with completion scheduled by the end of 2013.

MAPEI PRODUCTS: MAPEPLAN TU S, MAPEPLAN GEO 500 (DISTRIBUTED IN HONG KONG BY MAPEI CHINA LTD), MAPEPLAN DISK, MAPEPLAN COLLAR.



TECHNICAL DATA

Period of Construction:
March 2010 - May 2015

Period of the Mapei Intervention:
February 2012 - December 2013

Client: Mass Transit Railway Corporation (MTRC)

Contractors: Leighton Contractors (Asia) Ltd.

Applicator of Waterproofing Materials:
Metro Specialist HK Ltd.

Mapei Co-ordinator: Stuart Watt, Mapei China Ltd. (Hong Kong S.A.R)